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## AMENDMENTS TO THE CLAIMS

- (Currently amended) A framework (FR)-patched immunoglobulin 40. containing heavy and light chain variable region sequences from a parent antibody, wherein one or more of the framework sequences, defined as FR1, FR2, FR3 and FR4 of at least one heavy or light chain are each replaced by a the corresponding framework sequence[[s]] from a human or primate immunoglobulin a different species or from a different immunoglobulin of the same species, and such FRpatched immunoglobulin binds specifically to an antigen with affinity within 3-fold of that of the parent immunoglobulin, with the provise that not all of the replaced FR1, FR2 and FR3 of a FR-patched immunoglobulin heavy chain are from the same framework of a single immunoglobulin heavy chain and not all the replaced FR1, FR2 and FR3 of a FR patched immunoglobulin light chain are from the same framework of a single immunoglobulin light chain.
- 41. (Currently amended) A re-engineered or FR-patched immunoglobulin according to Claim 40, in which the particular FR chosen for patching or replacing each corresponding FR in the parent immunoglobulin:
  - a. exhibits the highest degree of homology, or at least 60%, to the corresponding parent FR;

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- b. exhibits identical sequence homology to the corresponding parent FR at the three amino acids immediately adjacent to the flanking CDR's; and
- contains identical amino acid to the corresponding c. parent FR at positions known to be close to, or have interactions with the CDR's/antigen binding site, as evaluated by computer modeling, crystal structure, or published information.
- (Currently amended) A re-engineered, or FR-patched 42. immunoglobulin according to Claim 40, in which the particular FR chosen for patching or replacing each corresponding FR in the parent immunoglobulin:
  - exhibits the highest degree of homology, or at least а. 60%, to the corresponding parent FR;
  - homology the b. exhibits identical sequence to corresponding parent FR at the four amino acids immediately adjacent to the flanking CDR's; and
  - contains identical amino acid to the corresponding c. parent FR at positions known to be close to, or have interactions with the CDR's/antigen binding site, as evaluated by computer modeling, crystal structure, or published information.
- 43. (Currently amended) A re-engineered or FR-patched immunoglobulin according to Claim 40, in which the

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particular FR chosen for patching each corresponding FR in the parent immunoglobulin:

- exhibits the highest degree of homology, or at least
  60%, to the corresponding parent FR;
- b. exhibits the highest degree of sequence homology to the corresponding parent FR, preferably identical, or contains conservatively similar amino acids at the four amino acids immediately adjacent to the flanking CDR's; and
- c. contains identical, or conservatively similar amino acids to the corresponding parent FR at positions known to be close to, or have interactions with the CDR's/antigen binding site, as evaluated by computer modeling, crystal structure, or published information.
- 44. (Currently amended) A re-engineered or FR-patched immunoglobulin according to Claim 40, in which the particular FR chosen for patching or replacing each corresponding FR in the parent immunoglobulin:
  - a. exhibits the highest degree of homology, or at least 60%, to the corresponding parent FR;
  - b. exhibits the highest degree of sequence homology to the corresponding parent FR, preferably identical, or contains conservatively similar amino acids at the

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three amino acids immediately adjacent to the flanking CDR's; and

- c. contains identical, or conservatively similar amino acids to the corresponding parent FR at positions known to be close to, or have interactions with the CDR's/antigen binding site, as evaluated by computer modeling, crystal structure, or published information.
- 45. (Currently amended) A FR-patched immunoglobulin according to claim 40, wherein one or more of said framework sequences from said human or primate immunoglobulins comprise one or more amino acids of the corresponding framework sequences from said parent immunoglobulin replace corresponding amino acids in one or more of said donor immunoglobulin sequences.
- 46. (Current amended) A re-engineered, or FR-patched immunoglobulin according to Claim 40, which specifically binds to an antigen with an affinity of between  $10^7 \, \text{M}^{-1}$  and  $10^{11} \, \text{M}^{-1}$ .
- 47. (Current amended) A re-engineered, or FR-patched immunoglobulin according to Claim 40, which specifically binds to an antigen with an affinity of between  $10^8~\text{M}^{-1}$  and  $10^{10}~\text{M}^{-1}$ .
- 48. (Current amended) A  $\frac{1}{1000}$  re-engineered or FR-patched immunoglobulin according to Claim 40, which is substantially pure.

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49. (Current amended) A pharmaceutical composition comprising a re-engineered or FR-patched immunoglobulin according to Claim 40, in a pharmaceutically acceptable carrier.